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ABSTRACT

This paper provides insight into the history and growth of the National Reading Research Center (NRRC), that was charged to engage in research aimed at improving the reading proficiency of all students and to develop a broad, comprehensive model of reading acquisition that integrates the various cognitive, social, motivational, cultural, and instructional elements. The paper begins with an overview of the NRRC's mission and research agenda that acknowledges and addresses four pervasive problems: (1) too many Americans lack the ability and the desire to read and write; (2) the crisis in equity; (3) the nature of current reading instruction; and (4) the prevalence of decontextualized reading research. The paper next discusses how the research is unified by an "engagement perspective," which is based on the assumption that students acquire the competencies and motivations to read for diverse purposes. The paper then presents a brief description of nine research objectives, followed by an outline of how collaborative research has been and remains central to the NRRC. The paper next discusses the research structure for the first four years of the NRRC. The paper then discusses in detail the five strands of research undertaken during the third year of the project, which was designed to extend the knowledge base about how to cultivate highly motivated, self-determining readers who are the architects of their own learning. The paper concludes with an overview of projects for the fourth year of the NRRC. (Contains 51 references and lists of projects for the third and fourth years of the five-year project.) (RS)

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Profiles of Progress on Literacy Engagement: An Update From the National Reading Research Center*

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*This paper is a compilation of sections from the National Reading Research Center's Year 4 Continuation Application and, thus, was written by several different NRRC researchers.

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Profiles of Progress on Literacy Engagement:

An Update From the National Reading Research Center

The National Reading Research Center (NRRC) is a cooperative agreement between the Office of Educational Research and Improvement in the United States Department of Education and a consortium of the University of Georgia and the University of Maryland. As outlined in *Reading Research into the Year 2000* (Sweet & Anderson, 1993), the NRRC is charged to "engage in research aimed at improving the reading proficiency of all students . . . [and further] to develop a broad, comprehensive model of reading acquisition that integrates the various cognitive, social, motivational, cultural, and instructional elements that play a role in learning to read and the reading process" (pp. 8-9).

The Georgia-Maryland consortium submitted a proposal for the NRRC in the fall of 1991. Following a competition involving submitters representing a number of major research institutions, the NRRC was awarded to the Georgia-Maryland team in March 1992. The NRRC is a five-year award (March 1992-March 1997) with total funding of $7.7 million, contingent upon an annual continuation application for further federal support. Currently, the NRRC is operating in the fourth year of this five-year agreement.

This introduction is intended to provide the reader insight into the history and growth of the NRRC. Specifically, we (a) provide an overview of our mission, (b) describe the conceptual framework we have created to guide our research, (c) present our broad research objectives, (d) outline how collaborative research has been and remains central to the NRRC, and (e) present an overview of the structure that organizes research at the Center.

Mission

One of the national goals for American education proposed by former President George Bush and endorsed by President Clinton's administration is that by the year 2000, every adult American will be literate, will possess the skills to compete in a global economy, and will be prepared to exercise the rights and responsibilities of citizenship. To assist in the achievement of this goal of nationwide literacy, the NRRC, beginning with its initial proposal, has formulated and crafted a mission and research agenda that acknowledges and addresses four pervasive problems identified in the literacy literature.

First and foremost is the well-documented problem that *too many Americans lack the ability and the desire to read and write*. Scholars whose work appeals to a broad spectrum of political views generally agree that as a nation we are less literate than we could be or should be (Langer, Applebee, Mullis, & Foertsch, 1990; Ravitch, 1985). Too many Americans lack essential reading skills (Kirsch & Jungeblut, 1986; National Commission on Excellence in Education, 1983), and an astonishing proportion of students lack the broad range of literacy skills needed for their own learning and productive participation in society (The Secretary's Commission on Achieving Necessary Skills [SCANS], 1991). Further, too many students who can read choose not to do so (Foertsch, 1992), a problem identified and described as *aliteracy*. Researchers associated with the NRRC are addressing the problems of illiteracy and aliteracy by carrying out research to discover what promotes readers' engagement in literacy activities, fosters their critical thinking and strategic learning, and prepares them to meet the challenges of a technological age.

The second problem is *the crisis in equity*. It is time to acknowledge and confront the persistent disparity in the reading achievement of mainstream and non-mainstream students in the United States. Clearly, we are failing to meet the literacy needs of today's socially and culturally diverse student population (Applebee, Langer, & Mullis, 1988). To assist in altering this situation, we are conducting research that examines social and cultural issues that may affect literacy achievement and we are exploring how best to address issues of diversity in classrooms, homes, and communities across the country.

The third problem is *the nature of current reading instruction*. Although in the last two decades, we have seen significant advances in our understanding of the reading process and of how to teach reading, this understanding does not seem to have had widespread impact on classroom practice (Alvermann & Moore, 1991; Wendler, Samuels, & Moore, 1989). In many elementary classrooms, for example, reading instruction today looks remarkably similar to that of the 1950s, with a basal reader program, three ability-level groups, a student workbook, and an end-of-the-year standardized test (Richardson, Anders, Tidwell, & Lloyd, 1991). Why is this the case? We believe, like Mosenthal (1993), that efforts to disseminate research on reading instruction have been hampered by findings that do not address teachers' questions about the complexities of teaching students to read in actual classrooms. Consequently, from the beginning, we have involved teachers as full participants in the NRRC research. We are also establishing permanent research sites in schools.

The fourth problem is *the prevalence of decontextualized reading research*. We know a great deal about how typical readers process information in carefully controlled situations but much less about how they construct meaning in the contexts in which they are usually required

to read. Consequently, we are focusing the majority of our efforts on research in school-based settings, that is, classroom-based research that involves students and teachers engaged in natural curricular and instructional tasks and environments.

Framework: The Engagement Perspective

To assist in the achievement of the goal of nationwide literacy, the National Reading Research Center recognized that we must also acknowledge and respond to the needs of those closest to students learning to read--teachers. As a first step, we conducted a national poll of teachers, asking them to identify issues and problems warranting further research (O'Flahavan, Gambrell, Guthrie, Stahl, Baumann, & Alvermann, 1992). The 400 respondents indicated that their concerns included instructional practices for young children who come to school without a large store of early literacy experiences, teacher-based classroom assessments, and procedures for decision making in a classroom reading program. The teachers' first priority, however, was finding ways to motivate students and to create an interest in reading. This priority, as stated by teachers, led directly to what we have come to call an engagement perspective for our research.

According to the National Academy of Education (1991), "the interests of students, institutions, and society as a whole may be better served by discovering more productive forms of engagement with learning" (p. 39). Research has documented that a reader's engagement with texts is a strong predictor of her or his success in reading (Morrow & Weinstein, 1986), while additional evidence shows that children play a role in their own educational development by the choices they make about how to spend their time (Scarr & McCartney, 1983).

At the National Reading Research Center, our overarching goal is to study how to cultivate highly engaged, self-determining readers who are the architects of their own learning.

Our research is unified by an *engagement perspective*, which is based on the assumption that students acquire the competencies and motivations to read for diverse purposes, such as gaining knowledge, performing a task, interpreting an author's perspective, sharing reactions to stories and informational texts, escaping into the literary world, or taking social and political action in response to what is read. Highly engaged readers are motivated, knowledgeable, strategic, and socially interactive.

The engagement perspective is congruent with other views of reading acquisition and instruction. Like the cognitive apprenticeship approach (Brown, Collins, & Duguid, 1989), which is based on Vygotsky's (1978) theory of social mediation, the engagement perspective recognizes the social nature of cognition. However, it also holds that reading development is not exclusively interpersonal (e.g., a child choosing to read in bed at night). Like explicit instruction approaches (Duffy et al., 1987), the engagement perspective acknowledges that there are times when students may require verbal explanation, modeling, and guided practice; however, it also recognizes that this type of instruction is most effective when children's social and motivational needs are understood and respected (Paris, Cross, & Lipson, 1984; Paris, Wasik, & Turner, 1991). Like whole language, the engagement perspective implies an emphasis on reading authentic literature, integrating meaningful reading and writing activities, and developing meaning through social interaction (Goodman, 1986); however, it extends these principles to informational texts, explicit teaching strategies, and texts not self-selected by the learner.

Within our perspective, teachers engage students' cognitive, cultural, social, and emotional qualities and challenge them to assimilate new ideas, form new interpretations, or construct new concepts from print. When engagement and challenge are kept in balance,

students grow in reading capacity, self-esteem, and desire to read for learning and enjoyment. Engagement of learners may occur in elementary classrooms or in English, science, history, and geography classes in middle and secondary schools when teachers stimulate readers to learn new ideas and concepts. The more fully readers are engaged, the more likely they are to make interpretations, to learn strategies for comprehension, and to acquire new perspectives on subject matter.

Research Objectives

Guided by the engagement perspective and grounded in the best thinking of teachers and researchers in reading, investigators at the NRRC outlined the following objectives in their original proposal. These objectives continue to guide and direct scholarly inquiry as the NRRC moves into Year 4 of its cooperative agreement. Specifically, NRRC researchers seek to:

- Describe and develop social, cognitive, and language bridges from home to school for emergent readers.
- Extend the knowledge base on the cognitive processes of reading by relating these processes to social and motivational dimensions of instruction.
- Describe the growth of students' motivation to read at home and in school.
- Study the influences that innovative social participation patterns have on literary interpretation, higher order thinking during content area reading, and sustained motivation for sharing books.
- Examine and design new literature-based curricula and instruction for first- and second-grade learners, emphasizing programs for students who are placed at-risk for reading failure.
- Trace knowledge acquisition during reading in science, math, geography, and history classes in collaboration with teachers in these content areas.
- Chronicle the effects of long-term strategy instruction on the motivational and cognitive development of students of diverse cultures and abilities.

- Evaluate alternative reading assessments, establish standards for teacher-based assessments, and develop policy-based alternative assessments.

- Affirm our commitment to collaborative research, which enables us to define and describe professional development in teacher-researcher communities, preservice education, and local school system initiatives.

Collaborative Research

The NRRC was founded on the principle that informative, useful research must link theory and practice and be credible to its primary consumers--teachers and others who work daily with children and adolescents to develop or enhance their literacy abilities. To achieve this objective, we believe that research must not only be situated in schools but also involve teachers as research partners. We expressed this fundamental tenet of the NRRC on the very first page of our original proposal:

> Our vision for the NRRC is based on the belief that there should be a dynamic, reciprocal relationship between theory and practice--that theory can inform practice and practice can enlighten theory. Therefore, NRRC activities will enlist teachers as collaborative researchers and establish permanent research sites where university- and school-based investigators plan, conduct, synthesize, and report research. When teachers engage in research, posing problems and examining their own work, there is inherently a bridge between theory and practice. Teacher inquiry develops ownership of the research questions, enhances the credibility of the findings, and fosters dissemination.
>
> (Alvermann & Guthrie, 1991, p. 5)

Two major NRRC initiatives have addressed this goal of collaborative inquiry. First, research has been conducted collaboratively with teachers and other school-based personnel.

Not only have virtually all NRRC studies in Years 1-3 involved school- or community-based research, but also a significant proportion (40%) of the NRRC projects have had nonuniversity researchers as co-investigators. Or stated differently, 44% of all researchers listed on Year 1-3 NRRC projects have affiliations other than an institution of higher learning. For example, in one Year 3 project, Kieffer and Faust, two university-based researchers, worked collaboratively with two school-based researchers, Morrison and Hilderbrand, to develop methods for using portfolios in whole language classrooms. In some instances, school-based persons have had their own individual projects. For example, Jean Frey, an administrator in the Fairfax County Public Schools, directed a Year 3 study on developing local support for teacher-researcher communities.

Second, the NRRC has followed through on its commitment to create and establish permanent school research sites. As promised in the original proposal, the NRRC School Research Consortia (SRC) were established in Year 3. Throughout the SRC projects, teachers themselves pose the research questions (Baumann, Allen, & Shockley, 1994) and conduct inquiry in their own classrooms. For example, Rice and her colleagues (Year 3) from the University of Maryland SRC investigated the changes in their attitudes about reading instruction as a result of their involvement in the Concept-Oriented Reading Instruction (Guthrie, Bennett, & McGough, 1994) project. Similarly, the Year 3 University of Georgia School Research Consortium comprised 17 studies that involved 36 teacher-researchers from 11 schools in four different counties. These studies explored a variety of questions in elementary, middle school, and secondary classrooms (Allen, Shockley, & Baumann, 1995). We believe that this

commitment to collaborative inquiry generates research that is inherently useful and credible, and which has a significant impact on practice.

Research Structure

The research agenda in Years 1 and 2 of the NRRC was responsive to the Department of Education's call for proposals, which recommended that the research should address three themes: Instruction, Learning, and Assessment. Accordingly, the first NRRC proposal contained these three themes, with the addition of a fourth theme, Teacher Development. The Year 1 and Year 2 cooperative agreement organized NRRC research into four strands, each of which included several subthemes: (a) **Instruction**, which included Literature and Early Reading, Comprehension and Cognitive Strategy Instruction, Knowledge Rich Contexts, and Social Contexts of Instruction; (b) **Learning**, which consisted of Emergent Literacy and Language Development, Motivation for Reading, and Learning Subject Matter from Text; (c) **Assessment**, which embraced Classroom Teacher Assessments and National Assessments; and (d) **Teacher Development**, which included Teacher Inquiry and Growth of Teachers' Professional Knowledge. These themes and subthemes provided a framework for investigators to establish their research projects within the larger engagement perspective on reading.

During Years 1 and 2 of the NRRC, however, we became increasingly aware of the importance of connecting the research on learning with studies of instruction and teacher development. We found that the themes of Instruction, Learning, Assessment, and Teacher Development were hardly discrete and overlapped significantly. For example, many projects contained assessments and promised to contribute to the knowledge base on assessment, although they were not primarily classified as inquiries into the nature of assessment. In

addition, the NRRC National Advisory Board encouraged investigators to find linkages and to form thematic clusters among studies in order to convey coherent emphases in the research priorities of the NRRC.

To achieve the goal of more coherent, interconnected research initiatives, the Year 3 Continuation Application reflected reformulated themes and new alliances. The following five research themes were adopted for Year 3: (a) **Home-School Connections in the Development of Reading**, which examined how members of the family, community, and school use spoken and written language to foster the socialization and conceptual development of children in ethnically diverse populations; (b) **Early Literacy**, which explored the impact of literature-based programs on motivation and cognitive development and examined innovative interventions for English-speaking and non-English-speaking students; (c) **Reading Engagement in Conceptual Domains**, which included studies on integrated curricula and learning from text; (d) **Literacy Professionals' Ways of Knowing**, which addressed questions of how literacy professionals come to know and share what they know and to what extent they develop new practices and beliefs through reading, conferencing, peer discussions, and self discovery; and (e) **School Research Consortia**, which involved teachers as researchers in school-based research projects.

The structure created for Year 3 of the NRRC has extended into Year 4. The objective of achieving coherent, interconnected research within five broad themes is being addressed even more aggressively by linking studies to one another and by forming clusters of related studies. In this way, the NRRC seeks to foster the transfer of reading research into classroom practice, and thereby, to improve the reading proficiency of **all** American students.

STATUS REPORT OF CENTER PROJECTS

In Year 3 of the National Reading Research Center (NRRC), the University of Georgia and the University of Maryland continued to make progress in addressing the objectives set forth in the original proposal. As in the past, the engagement perspective provided the overarching framework for the research conducted during Year 3. Studies that extend the knowledge base about how to cultivate highly motivated, self-determining readers who are the architects of their own learning formed the core of the Year 3 research agenda. The NRRC also continued its commitment to involving teachers as researchers.

The research projects for Year 3 were organized into five strands: Home-School Connections in the Development of Reading, Early Literacy, Reading Engagement in Conceptual Domains, Literacy Professionals' Ways of Knowing, and School research Consortia. Progress reports of how the Center's researchers are addressing the problems and objectives set out in the original proposal are described next under each of the five strands.

Home-School Connections In The Development Of Reading

As the original proposal articulated, one aspect of the mission of the NRRC is to address issues of equity in reading achievement. One of the most powerful sources of inequity is the problem of home-school continuity (Heath, 1983). Literacy practices in homes of lower income and language-minority students are often different from the literacy practices of the school (Goldenberg, 1987). Research within the Home-School Connections strand addresses one of the originally stated objectives of the NRRC which was to describe and develop social, cognitive, and language bridges from home to school for emergentreaders. Much of the research in this strand focuses on sociocultural resources for literacy (Moll, 1992) among groups historically

placed at risk for experiencing difficulties in learning to read, and as such is responsive to the NRRC mission of addressing problems of equity.

Research relevant to the Home-School Connections strand has been conducted since Year 1. Two longitudinal studies, one by Baker, Sonnenschein, and Serpell, and the other by Brody and Stoneman, began in Year 1 and are continuing into Year 4. The Baker et al. project examines the literacy-related beliefs and practices of the families and teachers of children growing up in African American and European American communities in Baltimore and how these relate to the emerging competencies of the children themselves. The Brody and Stoneman project emphasizes the contribution of family processes and goals to children's literacy learning by studying young African American children growing up in rural Georgia, their older siblings, and their mothers. In Year 3 new projects within the strand were initiated by Tomlinson and by Reinking, Labbo, and McKenna. In addition, other studies that have bearing on the issue of home-school connections were conducted by Koskinen, Blum, Bisson, Creamer, Phillips, and Grella and by Gambrell.

Home Literacy Activities and Values

Documentation of the home experiences of young children is an important prerequisite to building connections between home and school, especially among socioculturally diverse populations. This information provides a foundation on which parents and teachers can build a shared understanding of childrens' needs.

Studies by Baker, Serpell, and Sonnenschein, and Brody and Stoneman have yielded information relevant to home-school communication. For example, in the Baker et al. project, parents' reports of children's everyday activities were collected over a one-week period. Parents

were later questioned about children's participation in selected activities. The goal was to document the home experiences through which early literacy is nurtured and to explore the cultural themes informing the literate activities in the home. Families in both sociocultural groups reported that their children had frequent opportunities to engage in storybook reading, singing, television viewing, and mealtime conversation -- all activities with the potential to foster development in several domains conducive to literacy. These precursors to literacy and their associated activities were orientation toward print (storybook reading), phonological awareness (singing); knowledge of the world (television viewing); and narrative competence (mealtime conversation). Middle income families tended to show greater endorsement of the cultural theme of literacy as a source of entertainment. Lower income families, in contrast, tended to give more attention to the theme of literacy as a skill to be deliberately cultivated.

Parents' beliefs, expectations, and goals regarding schooling and development are likely to influence the success of efforts to foster home-school connections, and it is therefore important to understand these beliefs and goals. For example, in the Baker et al. project, the study parents and their children's prekindergarten teachers were asked to identify and rank the goals they had for their children or the children in their classrooms. Both parents and teachers gave their highest rankings to personal development goals (e.g., self-esteem, independence). For this small sample, at least, there was some congruence in the goals parents and teachers held for children's development. This consensus is encouraging given that the majority of the parents had low income levels. One obstacle to home-school connections involving lower income parents, it is often argued, is that their values and goals differ from those shared by the mainstream cultures of school and middle income families. Also important is the finding from

the same project that parents from lower income communities, both European American and African American, are as likely as middle income parents and teachers to endorse the view that school and home share the responsibility for helping children learn to read.

Family Processes

Brody and Stoneman are seeking to pinpoint family processes associated with the development of literacy among African American children and their siblings living in rural Georgia. They hypothesize that developmental goals that promote literacy will contribute to the availability of literacy-related activities in the home and to patterns of family interactions around such activities. They further hypothesize that parenting practices will indirectly influence literacy development by creating different affective atmospheres during interactions around literacy-promoting activities, and thus, influence children's propensity to attend to and process formal and informal instruction. Parenting practices are also hypothesized to contribute to the quality of sibling relationships and the willingness of older siblings to interact with younger siblings in literacy-related activities. Findings from the study to date reveal the impact of potential protective and risk factors for kindergarten children who attended Head Start. Literacy and cognitive competence assessments were obtained from kindergarten teachers and children. The results support the hypothesized relations between achievement and protective factors, especially caregiver self-esteem, endorsement of developmental goals focusing on independence, co-caregiver support and communication, and engaged, responsive, and cognitively challenging caregiver-child interactions. These factors influenced the former Head Start children's risk status through their positive association with literacy and cognitive outcomes. The findings also suggest that the presence of caregiver psychological distress and conflicted family relationships

are more likely to produce negative developmental outcomes. Caregiver depression, high child activity levels, co-caregiver conflict, and negativity in caregiver-child interactions were risk factors associated with poorer literacy and cognitive outcomes.

Home-School Linkages

Research within the Home-School Connections strand also seeks to identify ways that teachers can connect their pedagogy with the home lives of their students. One way of doing so is through the use of curriculum materials that are sensitive to the ethnicity and cultural backgrounds of the children. Tomlinson's project is designed to examine teachers' perceptions of information that can be used to facilitate their role as the bridge between an important aspect of young learners' homes--their cultural background and ethnic identity development--and their literacy development. Building on Year 2 research, she is exploring teachers' design of lesson plans based on Banks's (1981) curriculum goals for stages of ethnic identity development.

Research within the home-school strand is also providing information about patterns of social interaction surrounding literate activities taking place both at home and school. For example, the Reinking et al. project is examining children's talk as they collaborate with peers, teachers, and parents in computer-related literacy activities. Preliminary analyses have revealed the fruitfulness of this approach for gaining insights into the social nature of children's literacy development at home and at school.

Other NRRC projects have included interventions designed to extend classroom reading activities to the home environment. Gambrell, in a project co-sponsored by Reading is Fundamental, has elicited the enthusiastic cooperation of parents in the Running Start reading program that challenges first graders to read extensively at home and at school. And Koskinen

and her colleagues have been investigating whether a home/school literacy program is a significant supplement to the literacy instructional program of culturally and linguistically diverse first grade students. In their study, second-language learners given the opportunity to practice reading books with audiotapes at home, showed substantial growth in their ability to read books of increasing difficulty fluently and accurately. In addition, teachers and parents reported that the participating students read more and demonstrated increased confidence and independence in literacy activities. Thus, this strand addresses the home-school interchange from multiple perspectives.

Early Literacy

To address the challenges of early reading instruction, one of the NRRC objectives was to examine and design new literature-based curricula and instruction for first and second-grade learners, emphasizing programs for students who are placed at-risk for reading failure. Because it is acknowledged that reading instruction is a social phenomenon, and that social interaction patterns influence learning (Vygotsky, 1978), another NRRC objective has been to study the influence that innovative social participation patterns have on literary interpretation, higher order thinking during content area reading, and sustained motivation for sharing books.

During the past three years, the work of the Early Literacy group has generated a body of research that addresses the question "What constitutes the most engaging classroom instruction for early readers?" This strand of research is based on the premise that early literacy instruction should emphasize the comprehension of literature (Harste, Woodward, & Burke, 1984), without neglecting students' needs for word recognition (Adams, 1990). The research generated by this group has provided rich descriptions of early literacy instruction using a combination of

qualitative and quantitative methods. Taken together, the studies conducted by the early literacy group support the notion that effective literacy instruction is decidedly social that is, it is characterized by extensive opportunities for dialogue, personal interpretation, and collaboration. In addition, these studies suggest that effective classroom instruction is closely associated with opportunities for integrated reading and writing experiences that are personally meaningful to students.

Social Interactions and Early Literacy Instruction

Despite the fact that the research on innovative participation structures is a rich line of inquiry, we have until recently known very little about the relationships between social interaction and literacy development. The work of the early literacy group has provided a deeper understanding of the role of social interaction during literacy events. Gambrell, Codling, and Palmer have described conditions that improve reading motivation. Almasi, Gambrell, and Morrow have shown the role of social patterns in the interpretation of text.

Saracho investigated the effects of literacy-enriched centers on the social play of five-year-old bilingual children. Specific changes in the play environment promoted children's literacy behaviors and intentions. Her work describes the social participation patterns of young children and their effects on higher order thinking. This research has provided information that is pertinent to creating effective literacy contexts and adapting instruction in literature-based instruction to promote higher level thinking.

Teacher-student interactions were the focus of studies by the team of O'Flahavan, Wong, Groth, Marks, Pennington, Sutton, Leeds, and Steiner-O'Malley. Their work, conducted in culturally and linguistically diverse first- and second-grade classrooms using a literature-based

approach with readers at risk, showed that teachers changed the nature of their scaffolding as a function of text familiarity. For example, as students reread familiar texts, teachers became less directive and began to coach the students in their attempts to read. This work has important implications for describing instruction that is responsive to the needs of children and for promoting teacher-student interactions that support and nurture emergent readers in their literacy development. The research completed in this area should assist teachers in the difficult task of assessing students' knowledge in a manner that will lead to decisions about appropriate instruction.

Social Interaction and Comprehension Strategy Instruction

The role of social interaction in effective comprehension strategy instruction has been described by Pressley, and his colleagues. They have documented the effects of effective strategy instruction on the motivational and cognitive development of students from diverse cultures. The study, conducted in second-grade classrooms, employed qualitative and quantitative methods over a full academic year. A major finding of this study was that teachers create motivating classroom climates by supporting students in risk-taking, conveying the importance of reading and writing in real life, encouraging student self-selection of literature, encouraging personal interpretations of text, and promoting more complex interpretations of text by facilitating peer discussion. Children in these classrooms showed an awareness of when and where to use comprehension strategies, as well as how to adapt them to new situations. Children's motivational beliefs were supported by the realization that comprehension can be accomplished by deploying effort to carry out comprehension strategies that are well-matched to reading tasks and objectives.

Reading-Writing Integration

Gambrell reported that social interaction about books and writing was a key aspect in children's motivation to read and write. Survey results and interviews revealed that children placed a high priority on talking about books with friends, parents, and teachers. Interviews conducted with children about their writing indicated that the reactions of "others" to their writing had a positive influence on children's motivation to write. Results of this study support the important influence of reading on young children's writing. Students are aware of the influence of other books and other authors on their own writing.

Morrow found that independent reading and writing times during which children could choose what to do and with whom they would work; provided a meaningful social context that resulted in increased literacy activity and performance. In interviews, children observed that reading and writing were fun because they could get help from their friends, thus showing the powerful motivational force of social collaboration in literacy development.

Home-School Interactions

In work conducted by Galda and her colleagues, interactive literacy journals revealed interesting insights about the social, cognitive, and language bridges from home to school for early readers. Children wrote in their journals, and teachers, parents, and families responded to the children's entries. This work provides a view of the development of the children's responses to what they read as well as their increasing excitement about books and reading as they moved toward fluent reading. The data also reveal the significant influence of the home on reading development.

Booth and Hall have investigated the development of word knowledge in young children. Their work supports the well-documented finding that early literacy experiences in school as well as in the home affect children's vocabulary development. An outgrowth of this work is an assessment procedure designed to identify children with limited word knowledge who would benefit from instructional programs designed to promote vocabulary development in the context of the development of metacognition.

The results of the studies conducted by the early literacy group highlight the influence of social participation patterns in the literacy development of emergent readers and writers. Teachers interested in creating a motivating context for children's literacy development now have research-based information to support sociocognitive theories of teaching and learning.

Reading Engagement In Conceptual Domains

In describing critical problems facing American educators, the original proposal for the NRRC notes the need to raise levels of higher order thinking in literacy (Calfee, 1994), and the need to motivate all students to read widely and frequently (Deci, Vallerand, Pelletier, & Ryan, 1991). NRRC research in the area of reading conceptual domains is designed to address these needs by extending the knowledge base on the cognitive processes of reading by relating these processes to social and motivational dimensions of instruction. It has paid particular attention to reforms and innovations in long-term instruction. We are investigating innovations that place a premium on motivation (Ames, 1992), and development of cognitive strategies to promote learning from a variety of text types in a range of content domains (Dole, Duffy, Roehler, & Pearson, 1991). Designing, implementing, and studying new forms of integrated instruction permits the NRRC to chronicle the effects of long-term strategy instruction on the motivational

and cognitive development of students of diverse cultures and abilities. Collaborative teams of teachers and university-based researchers have been conducting research to address this objective. These teams help to avoid the traditional pitfalls of applying university-based research to school-based practices, and enable us to compose a knowledge base that is both useful and credible to teachers and university-based researchers. In this strand, we affirm our commitment to collaborative research.

The studies we have conducted on Reading Engagement in Conceptual Domains have addressed the concerns of limited literacy and aliteracy. From these studies, a portrait of instructional environments that produce engaged, competent readers is emerging and a set of tools for assessing literacy engagement is being developed. NRRC researchers have sought to identify the instructional factors that foster engaged, competent readers, addressing this issue in projects ranging from a large-scale national sample to a longitudinal study of a few students, using techniques ranging from questionnaires to observations and interviews. For example, using nationally representative samples of 9-, 13-, and 17-year-olds from NAEP data, Guthrie and colleagues concluded that teachers need to support both social interaction and cognitive strategies if they wish to influence the amount and breadth of students' reading. Cognitive strategy instruction had a positive influence, but teachers who simultaneously fostered social discourse that situated strategy instruction in a meaningful context succeeded in increasing engagement. These findings support the use of direct strategy instruction such as teaching with analogies. For example, Glynn reported that teachers who used analogies in science instruction empowered students to learn complex concepts from science text books. The importance of enabling students to avoid misconceptions in science by teaching them to be alert to

inconsistencies, checking beliefs against facts and discussing contradictory information, has been emphasized by Hynd. However, the findings of secondary analysis of NAEP data also point to the importance of social and motivational conditions of strategy instruction in reading.

Researchers in this strand, working in collaborative teams, have succeeded in creating engagement-producing instructional environments. Guthrie and Dreher have found that instructional contexts can be designed and implemented in collaborative efforts among school and university personnel. Moreover, they have found that these contexts are viewed favorably by teachers, and that they succeed in facilitating both student engagement in and performance on literacy activities. An integrated reading and science project, for example, has been implemented with positive results in Chapter I classrooms with a high percentage of African American students. This integrated instruction, which is termed Concept-Oriented Reading Instruction (CORI), is a year-long program involving high amounts of student choice and social interaction in which strategies are taught using trade books. According to Guthrie, Bennett, and McGough, this instruction has improved children's amount and breadth of reading, their motivation, and their use of cognitive strategies in comparison to similar children who received traditional instruction.

An integrated reading and social studies project conducted by Dreher and Clewell is underway in a school with a predominantly middle class student population and a Chapter I school with a heavily Latino student population. Dreher's previous research shows that children are unlikely to use information-access strategies that their teachers have "covered" unless they are given guided practice in meaningful contexts. Dreher's current work examines strategy instruction integrated into social studies curricula with an emphasis on motivational conditions

that will encourage students to want to use the strategies that they have learned. As Oldfather and colleagues found in a longitudinal, qualitative investigation of students' motivational disposition toward literacy, the teacher's support of self-directed learning appears to foster motivational development.

Learning in social studies and science often relies on texts in the form of textbooks or trade books. Several studies have examined critical features of texts and their uses in instruction. For example, Reinking reported that science learning can be improved by requiring students to use review features of electronic text. In addition, Reinking has shown that multimedia book reading will increase amount and diversity of children's independent reading.

In social studies the genre of historical fiction is widely used because the texts engage students for extended amounts of time, according to VanSledright. However, VanSledright also found that students are frequently unable to distinguish historical content from the fiction form, and confuse the idea of narrative with the actuality of history. To help students distinguish between the concepts/themes in text and the form/structure of text, metacognitive competencies are needed. Carr has found that metacognitive processes are enhanced by intrinsic motivation of topical interest in controlled situations. In future studies Carr will address the issue of whether these findings can be applied to the dilemma of using history texts identified by VanSledright. In other investigations, Hynd and Britton have contributed to the empirical literature on the role of purpose, text features, and prior knowledge as they affect students' learning from science, while Hynd and Stahl have made similar contributions with regard to history texts.

Learning in conceptual domains often includes portfolios in which students gather science journals, notes from text, and project reports. Valencia reports that students who use

literacy portfolios have a greater sense of ownership of their literacy activities and a better understanding of themselves as readers and writers than non-portfolio users. Such ownership and understanding of oneself as a reader would seem to be an integral part of becoming an independent, motivated reader. Research by Valencia also indicated that, with experience, portfolio use begins to influence instruction, and that experience ameliorates problems in the scoring of portfolios and problems with what should be included in the portfolios. Afflerbach has described how teachers who integrate reading with science combine information from portfolios and other sources of classroom assessment to make instructional decisions and to report to parents and administrators.

Early in the development of an area, researchers must build the tools of their inquiry. Several have produced tools useful for examining the degree of student engagement in reading. One tool developed by Wigfield is a self-report questionnaire for children that reliably measures ten different motivations for children's reading. A second tool, developed by Sweet, is a teacher perceptions questionnaire that measures a teacher's beliefs about the level of a student's intrinsic motivations for reading. Both of these questionnaires are based on extensive samples and have been reported at major conferences. In addition, an interview protocol, designed to be sensitive to motivational change, has been developed and used with several samples. A measure of reading engagement has been constructed for third- and fifth-grade students, by Guthrie and colleagues. This tool is a reliable measure of cognitive strategies of search, drawing, writing, problem solving, informational text comprehension, and narrative understanding. The measure is sensitive to intrinsic motivation, correlating .8 with the interview protocol of intrinsic motivations. We argue that an important part of literacy instruction is facilitating engagement,

and these instruments will allow us to investigate change in motivations and strategies as they are jointly influenced by instructional interventions.

Integrated curricula that combine such areas as science and language arts are gaining national attention from policymakers. As standards for student learning outcomes emphasize higher order literacy competencies and dispositions, integrated curricula frameworks are becoming vitally important. Guthrie, Schafer, and Afflerbach investigated district-level policies and school-based practices in implementing integrated curricula in response to state-wide standards. They report that invention and implementation of integrated curricula are stimulated by a favorable policy climate that urges systemic change directed by partnerships of teachers and administrators.

Literacy Professionals' Ways of Knowing

One of the great insights to come from reading *Life in Classrooms* (Jackson, 1968) nearly thirty years ago was the need for researchers to "move up close to the phenomena of the teacher's world" (p. 159). Although the literature on teaching and teacher education has expanded greatly in the intervening three decades, (e.g., Grimmett & Erickson, 1988; Houston, 1990; Okazawa-Rey, Anderson, & Traver, 1987), the gap between research and practice in literacy teaching remains (O'Donnell, 1991) despite researchers' attempts to get closer to the phenomena of teachers' worlds. Why? Some scholars (e.g., Apple, 1993; Delpit, 1988) attribute the gap between research and practice to resistance based on literacy professionals' beliefs that are rooted in past experiences and enculturation. Others (e.g., Boomer, 1982; Lampert, 1987) believe that there has been too little movement back and forth between the worlds of practice and scholarship. Since its inception, the NRRC has been committed to promoting such movement

and in studying how literacy professionals acquire the knowledge that leads to changes in their literacy practices, and ultimately, to increased literacy for all students. In fact, one of its primary objectives has been to define and describe professional development in teacher-researcher communities, local school system initiatives, and preservice teacher education. Meeting this objective is important if we are to address the gap between research and practice.

Years One and Two

In the first two years of the cooperative agreement, NRRC researchers addressed the gap between research and practice by concentrating their efforts on establishing teacher-research communities. These efforts also addressed one of the problems we had identified in our original proposal, namely, the nature of current reading instruction. In the past, we have assumed that reading researchers' questions were important to teachers and that teachers would implement the results of studies conducted to answer the researchers' questions (Mosenthal, 1993). However, research conducted by Allen and her associates in Jackson County, Georgia (an NRRC Year-2 project) demonstrated the value of asking teachers to define their own research questions based on problems they identified in teaching children to read. In Years 1 and 2, O'Flahavan and a large group of teacher researchers in the Maryland area also demonstrated the value of teacher-researcher communities in influencing the literacy learning that goes on in classrooms when teachers are involved in asking real-world questions about their own instruction.

Two school-community based literacy programs, one at the elementary level (Gibney-Sherman, Year 1) and one at the high school level (O'Brien & Dillon, Year 2), addressed local school system initiatives that reached out to community stakeholders. In Year 2, Hudson-Ross and her school-based associates began a four-year longitudinal study aimed at examining how

preservice teachers' and master teachers' knowledge about literacy instruction at the secondary school level is acquired and modified over time. Tentative findings from this longitudinal study suggest that teacher education departments in colleges and universities must participate with schools if co-reform is to become a reality.

Other studies that focused on teacher development addressed the crisis in equity issue in literacy, which was identified in the original proposal as one of four major problems facing literacy educators. For example, Flood and Lapp (Years 1 and 2) documented the effectiveness of teachers' literature discussion groups in promoting understandings of literacy instruction for multicultural populations, and Thompson, Mixon, and Beasley (Years 1 and 2) developed instructional strategies and principles for improving the reading engagement of inner-city African American middle school students.

Year Three

In the third year (1994-95) of the Center, several members of the teacher development group were joined by other colleagues in an attempt to bridge the gap between research and practice by exploring literacy professionals' ways of knowing. They investigated ways of knowing through collaboration, exchanging roles, and listening to diverse voices.

Collaboration. Shockley, Allen, Baumann, and Michalove's project focused on studying the evolution of the School Research Consortium (SRC) at the University of Georgia site. As such, it supports the NRRC's mission of examining what occurs when teachers are engaged in all phases of research, theory-building, and dissemination. To date, Shockley et al. have conducted large group meetings and research seminars for members of the SRC, and they have held a two-week writing session for SRC teachers.

The Kieffer project was a collaborative case study of two university-based (Kieffer and Faust) and two school-based (Morrison and Hilderbrand) teacher researchers using portfolio assessment in their whole language classrooms. Members of that project are developing a method for using portfolios to document their own roles as learners as they strive to connect evaluation and instruction in a whole language context. Serpell, Baker, and Sonnenschein brought together prekindergarten and kindergarten teachers to explore ways of promoting literacy through home-school cooperation. During a workshop in July 1994, the teachers designed their own action-research projects and selected parents as partners in their inquiries, which began in the fall of 1994.

The Oldfather collaboration is between herself as a university-based researcher and 10 high school students, who for the past five years have been involved as co-researchers in studying students' motivation for literacy learning. Last summer the 10 student co-researchers met with Oldfather to plan a study in which they are interviewing teachers and administrators about decision making that enhances or diminishes students' motivations for literacy.

Exchanging roles. The opportunity to exchange roles, such that professors return to elementary and secondary level teaching positions and teachers assume the roles of professors, is one way of bridging the gap between research and practice. The Baumann project, which is an exchange between a literacy professor (Baumann) and a primary grade teacher (Shockley), also affords an opportunity to address another of the NRRC's objectives, for Baumann is examining the process of initiating literature-based curricula and instruction for students who are placed at risk for reading failure. This exchange began fall 1994 and will last the entire academic year. A similar exchange between a high school English teacher (McWhorter) and a language arts

professor (Hudson-Ross) is aimed at identifying the reasons for the lack of fit between research knowledge and actual literacy practices in both university- and school-based settings.

Listening to diverse voices. If literacy research is going to inform teaching practices and promote literate behavior in all children, it is imperative that a diversity of voices be heard, including those too often left out in the past. Toward this end, Alvermann and Commeyras are midway through a study in which they are exploring ways that university- and school-based teachers can begin to alter or "interrupt" discursive practices that perpetuate inequalities in classroom talk about texts. Their goal is to develop literacy strategies for helping teachers and students locate gender, race, and class bias in texts and interact in more equitable ways with each other during class discussion. In another project, DeGroff is listening to the voices of librarians, teachers, and principals to gain an understanding of their beliefs about, goals for, and practices used in reading instruction and promotion of voluntary reading. This project addresses two of NRRC's objectives: (a) motivation for reading in school and at home, and (b) social participation (interaction) among librarians, teachers, principals, and students as they share literacy materials.

In sum, NRRC researchers in the Literacy Professionals' Ways of Knowing strand are learning that alternative approaches to engaging university- and school-based personnel in the change process are effective largely because of the collaboration such approaches require if they are to be successful. This collaboration is essential if we are to bridge the gap between research and practice that still exists in too many places in our educational system nationwide.

School Research Consortia

According to Richardson (1994), one of the changes in conducting research on classroom practice over the past few years has been the shift from a focus on effective teaching behaviors to an understanding of how teachers make sense of their instruction and their students' learning. Questions of who owns the research and who should benefit from it have emanated increasingly form the teacher researcher communities (e.g., Cochran-Smith & Little, 1990; Hollingsworth & Sockett, 1994). In short, teachers are beginning to have a significant voice in what is studied, by whom, and for what purpose. In the NRRC, this movement toward teacher involvement in research has played an important role from the very start.

The Development of the School Research Consortia (SRC)

The NRRC was founded upon the principle that teacher questioning and inquiry is an essential cornerstone for a literacy research center. As a first step in the formation of the NRRC, we polled teachers regarding what they believed the critical issues or questions were that faced them as teachers and researchers. The results of the poll (O'Flahavan, Gambrell, Guthrie, Stahl, Baumann, & Alvermann, 1992) revealed a range of issues and questions of interest to teachers. The 10 most frequently cited concerns were the following: (a) creating interest in reading, (b) reading-writing relationships in the early grades, (c) instructional programs for children placed at risk, (d) teacher decision-making in the reading program, (e) increasing the amount and breadth of children's reading, (f) teaching reading strategies, (g) intrinsic desire for reading, (h) parent-school partnerships, (i) roles of teachers, peers, and parents in motivation, and (j) effects of early storybook reading. The teacher questions gleaned from this poll were used to guide and

craft the original NRRC proposal and are linked to the development of the School Research Consortia (SRC).

Given the NRRC's commitment to conduct research in schools by and with teachers, the University of Georgia and University of Maryland began planning for the School Research Consortia within the first years of the Center's operation. In the early fall of 1992, an SRC committee was formed at the University of Georgia NRRC site. The committee, which consisted of three public-school-based and two university-based researchers, created and implemented a process to establish an SRC. As a first step, we sent a letter to all public elementary and secondary schools within 30 miles of the University of Georgia campus. This letter described the NRRC and the SRC concept and invited school faculties to discuss with us their most pressing literacy issues. The SRC committee met with interested faculty from eight elementary and secondary schools on their campuses. The primary purpose of these meetings was to listen to the teachers and learn about the issues they believed to be most important to them as prospective reading researchers.

To initiate the dialogue at these meetings, participants were asked: "What questions do you have about the teaching and learning of literacy in your school or classrooms?" The response to our query was impressive (Baumann, Allen, & Shockley, 1994). The teachers had a range of questions that focused on their unique teaching situations. However, like the responses to the poll, the teachers' questions fell into recurring themes that were evident across the discussions. Several themes replicated those gleaned from the poll, for example, teachers' concern for motivation, interest, and attitudes toward literacy; parent-home-school connections;

and the role of instructional strategies. Others went beyond the poll, for example, the questions that involved technology and literacy instruction in culturally diverse classrooms.

On the basis of these meetings, the SRC committee created a process whereby school faculties interested in joining the consortium indicated in writing their research goals, their expectations for an SRC, what they had to offer the NRRC, and what they would expect to receive from the cooperative research arrangement. Proposals were received from five elementary schools and one secondary school in the greater Athens area. The SRC committee reviewed the documents submitted and decided that Fourth Street Elementary School in Athens would be the physical home for the SRC, due to the large number of teacher researchers at this campus, the diverse cultural make-up of the school, and its convenient central location. However, teachers from other schools not in the original pool also requested to join as the SRC became known within the local education community. Currently, the University of Georgia SRC consists of 36 teacher researchers located in one high school, two middle schools, and eight elementary schools in four counties surrounding Athens, Georgia. Additionally, there are four university-based co-researchers participating in SRC projects and three university-based facilitators.

The preliminary questions the teachers posed evolved over time into full-fledged research questions and proposals. This began during a two-day meeting held in June 1993 at Fourth Street School. At an SRC meeting in early September 1993, teacher researchers refined their questions and methods. Several themes evident in the poll data and the teachers' initial questions recurred in the questions driving their actual research. For example, several questions addressed student motivation for literate activity. On the other hand, issues of ethnic, cultural, and

linguistic diversity were not prominent in the original poll but were of clear interest and concern to SRC researchers. The 17 University of Georgia SRC projects commenced in the fall of 1993 and continued throughout the school year.

At the Maryland site, O'Flahavan and Litchko were involved from Year 1 a multi-year project that documented the evolution of an SRC known as the Jackson Road Elementary School Teacher Research Community. Twenty-one practicing teachers, 18 students teachers, and 20 methods practica students are part of this community. Over a three-year period, data have been collected on several achievement indices in reading, such as Chapter I graduation rates, first-grade running records, and teacher assessments of students' reading levels.

Two other teachers researcher communities at the Maryland site began in March 1994. One involves the Calverton Elementary and Catherine T. Reed Elementary Schools of Prince George's County (Rice, Bennett, Faibisch et al.). This community includes five teachers (two third-grade teachers, one fifth-grade teacher, and two reading specialists) whose goals are to identify factors in Concept-Oriented Reading Instruction that lead to changes in attitudes toward instruction, communication with parents, peers, and administration, and changes in attitudes about themselves as teachers. A second teacher researcher community involves a Fairfax County (VA) school administrator (Frey) and six other administrators from four elementary schools. In one school, 20 members of the staff are involved in teacher research, and in the other three schools, there are between 5 to 8 teacher researchers each. The Fairfax group's goals are to (a) support veteran and new teacher researcher communities as they seek to improve literacy instruction for their students, and (b) to develop a resource guide for administrators to

help them initiate, sustain, and support teacher researcher groups in their schools (see Table 1 for a listing of all SRC projects).

SRC in Relation to the NRRC's Goals and Objectives

Since their initial meeting in June 1993, the teacher researchers in the University of Georgia SRC have been actively involved in asking and answering questions related to their students, their classrooms, and themselves. This grounding addresses a long-standing concern that too much educational research is decontextualized and thus is either inaccessible to, or rejected by, teachers. The hope and mission of the SRC is rooted in the belief that when educators engage in research that is situated in and inspired by actual classroom interchanges, the abilities, interests, and equity situations of students will be directly addressed. Significantly, the SRC teachers researchers also have addressed the four pervasive problems identified as barriers to a goal of nationwide literacy and have supported in important ways the specific research objectives of the NRRC. By sharing the results of their work through the construction of a reliable teacher-research network within the SRC and the NRRC, the SRC researchers anticipate a broad impact and believe teachers can come to know both independently and collaboratively.

The belief that too many Americans lack the ability and motivation to read and write and the belief that there is a crisis in equity have been central to the work of the SRC teacher researchers. Some of the studies addressed these problems separately. For example, McWhorter, Jarrard, Lee, Rhoades, and Wiltcher focused on student-generated curriculum and student motivation while Gantt and Smith studied the impact of poetry on African American third graders. Other studies addressed the problems of equity and student motivation together.

For example, Neal focused on the question "What impact will inclusion of multiethnic literature have on students' self-concept, academic performance in English, attitude toward reading, attitude toward Cedar Shoals High School (sense of belonging), and understanding and acceptance of others' cultures?" The concern for students' ability to read and write was also addressed indirectly in a number of studies where teacher researchers examined the impact of a particular method of instruction on students' literacy development (e.g., Weaver's study, "The Role of Discussion in Developing Strategies for Aesthetic Reading").

As a group, the SRC studies have also supported several of the specific NRRC research objectives including those relating to home-school relationships, knowledge acquisition in the content areas, student motivation, and collaborative research. For example, Hankins, in her study of how to establish literate relationships with fetal-alcohol and/or crack babies who were in her kindergarten class and with their families, informed our efforts to describe and develop bridges from home to school for emergent readers. In addition, Weber and McKinney (conducting a science study) and MacDonald (conducting a mathematics study) provided us information about literacy and knowledge acquisition in their particular content areas.

As mentioned earlier, the SRC researchers were particularly concerned about students' motivation to read and write. It was a concern that spanned the grade levels and reached into the home. Researchers working with high school students (Chen, MacDougald, & Bowie; Neal), and elementary students (Easom, Harvell, & Eisenman) all questioned whether the inclusion of more ethnocentric literature would have a positive impact on students' self-esteem, attitudes toward reading, and motivation to read. Tatum questioned whether her high school students would become more interested in reading if their parents became involved in book discussions

Table 1

Year-3 School Research Consortia Projects

University of Georgia SRC Projects for Year 3 of the NRRC

1. **The Role of Discussion in Developing Strategies for Aesthetic Reading** - Dera Weaver, HM
2. **Student-Generated Curriculum and Student Motivation** - Patti McWhorter, Barbara Jarrard, Sue Lee, Mindi Rhoades, Buddy Wiltcher, CSH
3. **The Effects of Developing Individual Family History Art Books on the Self-Esteem, Cultural Pride, Motivation, and Writing Achievement of Fourth- and Fifth-Grade African-American Students** - Maxine Easom, Beth Ensign, David Harvell, and Gordon Eisenman, FSE
4. **Do Racial Attitudes Change When Students Correspond About Multicultural Literature?** - Valerie L. Garfield, CE; Randy Young, GCE
5. **Exploring Ways of Using Videos and Transcripts of Story Discussions in Elementary and Middle School Teaching** - Georgiana Sumner, ARE; Johni Mathis, BHLM; Michelle Commeyras, UGA
6. **Teachers Becoming A Community of Writers** - Debby Wood, Leah Mattison, Shelley Carr, CE; Randi Stanulis, UGA
7. **An Elementary/High School Literacy Partnership** - Emily Carr, FSE; Sally Hudson-Ross, CSH
8. **Developing and Extending Literate Dialogues** - Beth Tatum, CSH
9. **Using HOTS (Higher Order Thinking Skills Program) Procedures With High Achieving (Unofficially Gifted) First- and Second-Grade Students** - Vicki K. Krugman, FSE
10. **Poetry As A Path to Learning** - Carrie Gantt, Linda Smith, FSE
11. **Improving Media Center Collection to Support Reading Interests of At-Risk Students** - Shu-Hsien Chen, UGA; Dana MacDougald, CSH; Melvin Bowie, UGA
12. **Reading and Writing Math: Helping Children Overcome Math Word Problem Anxiety** - Sharon L. MacDonald, CE
13. **Multi-Age Group Fairy Tale Project in Grades 1 and 3** - Jane Holman, Christine Fuentes, and Nancy Baumann, BSE
14. **The Impact of African-American Literature on the Motivation of Learners in American Literature Classes** - Louise Neal, CSH
15. **Creating Literate Relationships with Fetal-Alcohol and/or Crack Babies and Their Families** - Karen Hankins, WDE
16. **Developing the Language of Science: A Special Education Inclusion Model for Fourth Grade** - Jodi P. Weber and Christine McKinney, FSE
17. **The Impact of Writing Buddies on Second- and Fifth-Grade Writers and Readers** - Wanda Wright, Jewel Moore, Pat White, Helene Hooten, GE

School Key: HM = Hilsman Middle; CSH = Cedar Shoals High; FSE = Fourth Street Elementary; CE = Chattahoochee Elementary; GCE = Green County Elementary; ARE = Alps Road Elementary; BHLM = Burney-Harris-Lyons Middle; UGA = University of Georgia; CE = Comer Elementary; BSE = Barnett Shoals Elementary; WDE = Whit Davis Elementary; GE = Gaines Elementary.

University of Maryland SRC Projects for Year 3 of the NRRC

1. **Developing Administrative Support for Teacher Research Communities** - Jean R. Frey
2. **Teacher Researchers, Administrators, Student Teachers, Students, and University Professors At Work: Charting the Evolution of School Research Center** - John F. O'Flahavan, Jane Litchko, and Peter Afflerbach
3. **Mapping Our Journey Through Instructional Change: The Process of Integrating Reading and Science** - Mary Ellen Rice, Fran Fabisch, Lois Bennett, John Guthrie, Brian Hunt, Ann Mitchell, Carol Poundstone, and Gladys Vanderwoude

with them. An elementary teacher (Sumner) and a middle school teacher (Mathis) teamed their classes via journals and videos in order to study cognitive and metacognitive processes as well as interest in reading and response to literature.

Without question, the strongest connection between the objectives of the NRRC and the SRC is found in Objective 9--to "affirm our commitment to collaborative research, which enables us to define and describe professional development in teacher-research communities" (Alvermann & Guthrie, 1991, p. 10). Some SRC projects involve school-based and university-based researchers working together; others involve teacher researchers in the same school working together; still others involve teacher researchers from different schools working together. Interestingly, the collaborative association that has been established through the SRC, has fostered an opening of communication between and among elementary, middle, and high schools. Even where studies were not intentionally designed to be so inclusive, teachers from all grade levels came together and listened to each other's concerns in this new research community.

Findings: Examples from Two SRC Projects

A school librarian (Baumann), a first-grade teacher (Fuentes), and a third-grade teacher (Holman) collaborated in a study that investigated the motivational aspects of Reading Buddies in a multi-aged group of young learners. In phase one of the study, first- and third-grade students were paired in 20-minute reading and writing centers during weekly visits to the school library, which included shared journal writing after students had participated in the various centers. In phase two, the Reading Buddies listened to several versions of popular fairy tales and then wrote their own script based on the original fairy tale. As a culminating activity, the

students performed their fairy tales for other classrooms. Students were also encouraged to take home videotapes of their performances to share with family members and other caregivers.

These researchers reported learning several things about the motivational aspects of Reading Buddies. One, they observed many nurturing behaviors from both the first and third graders. For example, Carl, Rob, and Cathy (pseudonyms) made sure that their mainstreamed special education buddies had enough time to read and write in their journals. A second observation was that students at both grade levels improved their writing skills, including the development of personal voice and style in writing. Finally, the teachers learned that some students related better than others to students of a different age. For example, some third graders did not understand how to serve as role models for the first graders. Sometimes the first graders were the role models and demonstrated better social skills than the older students. This observation, and others, demonstrated to Baumann, Fuentes, and Holman the value in, and possible modifications of, Reading Buddies in helping students develop better social skills as they worked cooperatively on tasks designed to stimulate their growth in literacy.

In their third year of existence, the University of Maryland's Jackson Road Elementary School Teachers Research Community has data to indicate that the professional development milieu emerging at the school increased the incidence of within- and cross-grade collaborations, which in turn supported instructional changes within individual classrooms at all levels. Analyses of student assessment information at the primary level suggest that these instructional changes improved reading achievement significantly, to the level where >90% of the first-grade students were reading on grade level.

In conclusion, the SRC members have formed a community that has established an identity. As the community continues to grow, so do the members. They grow in confidence, knowledge, and self esteem. They grow in ability to reflect on their instructional programs, experiment with new ideas, and provide new and more effective ways to reach their students. They have grown by becoming researchers. As Helene Hooten commented about her first year of engaging in teacher research, "I like the idea of being a teacher researcher now. . . I would like to do a study again next year." And Helene's and her colleagues are continuing their research in the second year of the SRC.

OVERVIEW OF YEAR 4 PROJECTS

The original proposal submitted by the Georgia-Maryland Consortium to the U.S. Department of Education framed the current status of reading and literacy in the United States in terms of four problem areas. First, and foremost, is the well-documented problem that too many Americans lack the ability and desire to read and write. An astonishing number of students and youth lack the broad range of literacy skills and dispositions needed for learning and for productive participation in society. A second problem is the persistent lack of equity in the reading achievement of mainstream and nonmainstream students in the United States. Today's schools are filled with a demographically diverse population for whom achievement and access to literacy development opportunities are clearly unequal.

A third problem is the nature of current reading instruction. With some notable exceptions, much reading instruction today looks remarkably similar to instruction of the 1950s, with a basal reading program, ability groupings, student workbooks, and an end-of-the year standardized test. The fourth problem is the decontextualized nature of research on reading.

Although much research on reading has been produced to illuminate theories of cognition and language, we now have evidence that the cognitive aspects of reading are influenced by social and motivational factors. These two factors have been neglected in the history of reading research despite their overwhelming importance to teachers and their potential value to education theorists.

Engagement Perspective

The engagement perspective, as described in the original proposal, has been elaborated and extended in many investigations during the first three years of the NRRC. The engagement perspective suggests that a mature reader chooses to read in a variety of situations and comprehends the selected material as a means for gaining knowledge, for performing practical tasks, and for enjoying aesthetic experiences. Engaged readers are strategic, activating knowledge from previous experiences to construct new understandings and marshaling cognitive strategies to regulate the meaning-making process. Engaged readers are socially interactive, sharing literacy with peers and family members. They form communities to share their knowledge, interests, and beliefs through literacy activities. Fundamental to engaged reading are these four attributes: (a) using prior knowledge to incorporate new information from books, (b) employing cognitive strategies to learn from text, (c) satisfying intrinsic motivations through reading, and (d) participating socially in a variety of group structures to share meanings from texts.

Research Strands in Year 4

Home-School Connections in the Development of Reading

Many researchers embrace the view that literacy is a set of cultural practices that pervade the home, community, and school. This view emphasizes the continuity of literacy development. Several NRRC investigations will explore how members of the family, community, and school use spoken and written language to foster the socialization and conceptual development of children. These studies emphasize ethnically diverse populations because children from these populations often experience discontinuities that are disruptive to early and long-term literacy development.

Early Literacy

Although basal reading programs remain in widespread use in the primary grades, new instructional approaches are being attempted in the nation's schools. The most pervasive of these approaches are literature-based programs, which use children's trade books or published collections of literature. The impact of literature-centered programs on motivation and cognitive development in reading is being explored in the NRRC in a variety of studies. Because some critics argue that literature-based approaches do not serve the needs of at-risk, lower achieving students, several NRRC studies examine innovative interventions for English-speaking and non-English speaking students who arrive at school with a restricted repertoire of school-related literacy competencies.

Reading Engagement in Conceptual Domains

Reading widely and confidently in conceptual domains such as science and history contributes to an individual's level of general knowledge, success in school, and participation in

the community. To expand our knowledge about the development of reading engagement in conceptual domains, the NRRC proposes three clusters of research. Across the nation a variety of curricular innovations are being created that highlight integrated instruction. The NRRC will examine the benefits of three of the most prominent integrations: language arts and social studies at the elementary level, language arts and science at the elementary level, and English, history, and science at the secondary level. In all cases, the investigators will explore how integrated curricula foster the development of cognitive, motivational, and conceptual aspects of reading.

Literacy Professionals' Ways of Knowing

As the needs of our literate society accelerate, instruction in schools must evolve. Yet instruction often appears to resist reform because it is embedded in a complex educational system. Rooted in the knowledge and beliefs of teachers, instruction and curricula are often dominated by forces of stability rather than renewal. If we understand more fully how literacy professionals come to know and put their knowledge to work in classrooms, progress becomes more promising. To what extent do literacy professionals develop new practices and beliefs through reading, conferring, peer discussions, and self-discovery? These issues will be examined by NRRC investigators who study the channels of change that affect the culture of the classroom.

School Research Consortia

From the inception of the NRRC, we proposed to explore a variety of collaborative arrangements for research. Among our highest priorities is the inclusion of teachers as researchers. Teachers now participate in many of the NRRC's studies. School-based research

projects assume that when teachers engage in research, posing problems, and examining their own work, there is a bridge between theory and practice. As teachers participate in inquiry, they design new questions, create new ways of observing instruction, and develop avenues for communicating their new understanding to other educators. Knowledge generated from teacher research is likely to be easy to use and share in the community of literacy professionals. In Year 3 of the NRRC, School Research Consortia were formed, with a variety of models organized by Shockley at the University of Georgia, O'Flahavan at the University of Maryland, Rice of Prince George's County Public Schools, Maryland, and Frey of Fairfax County Public Schools, Virginia. In Year 4, these School Research Consortia will continue in different phases. Most are interpreting and writing reports of data collected in Year 3, and others are planning to generate new data. As these School Research Consortia mature, their distinctive configurations will permit us to identify which models of teacher inquiry are most productive for their participants and for the profession.

Listing of Year 4 Projects

1. 1.4 Children's Early Literacy Experiences in the Sociocultural Contexts of Home and School
Linda Baker, Susan Sonnenschein, and Robert Serpell

1. 2.4 Parent, Teacher, and Child Participation in a Family Literacy Program: The Effects on Attitude, Motivation, and Literacy Achievement
Lesley Mandel Morrow

1. 3.4 The Effects of a School-Home Reading Motivational Program on Family Literacy Practices
Linda Gambrell

1. 4.4 Extending Classroom Literacy Activities to the Home Environment of Culturally and Linguistically Diverse Students
Patricia S. Koskinen, Irene H. Blum, Stephanie A. Bisson, Stephanie M. Phillips, and Terry Creamer

1. 5.4 Supporting Home Literacy for Families of Bilingual Children
Olivia N. Saracho

1. 6.4 Family Processes and the Development of Sibling Literacy in Rural Families
Gene Brody and Zolinda Stoneman

1. 7.4 Motivating Children from Low-Income Families to Read at Home: The Role of Libraries
Donna Alvermann

2. 8.4 Teaching Reading Strategies Within a Literature-Based Framework: A Year-Long Field Study
James F. Baumann

2. 9.4 Acquiring Word Fluency in Literature-Based Instruction
Robert Calfee

2.10.4 Transforming Early Literacy Instruction in the Regular Classroom: Toward a Comprehensive Instructional Framework Designed to Meet the Needs of All Students
John F. O'Flahavan and Shelley Wong

2.11.4 The Development of Grounded Models of Outstanding and Typical Primary-Level Literacy Instruction
Michael Pressley, Jennifer Mistretta, and Ruth Wharton-McDonald

2.12.4 First Grade Reading Instruction: Teachers and Students in Transition
James V. Hoffman and Sarah J. McCarthey

2.13.4 Investigating Young Children's Opportunities for Literacy Development During Computer-Assisted Story Book Reading and Computer-Assisted Response to Literature Activities
David Reinking, Linda D. Labbo, and Michael McKenna

2.14.4 Social Relationships, Peer Interaction, and School Literacy Development
A. D. Pellegrini and Lee Galda

2.15.4 Reading Curriculum Guided by a Typology of Texts: An Investigation of the Effects of Instructional Interaction with Ethnic Identity
Louise M. Tomlinson

3.16.4 Effects of Statewide Systemic Reforms on School-Level Practices and Outcomes in Reading
William D. Schafer, John T. Guthrie, Steven F. Ferrara, Peter McCallum,and Leslie Walker-Bartnick

3.17.4 Children's Motivations for Reading in Regular and CORI Elementary School Classrooms
Allan Wigfield

3.18.4 How Teachers Perceive the Origins of Students' Motivation to Read
Anne P. Sweet

3.19.4 Enhancing Reading Engagement Across Knowledge Domains Through Concept-Oriented Reading Instruction
John T. Guthrie, Ann Dacey, Lois Bennett, Libby Harr, and Betsy Harris

3.20.4 Developing, Coordinating, and Using Reading Assessment in a Concept-Oriented Reading Instruction (CORI) Program
Peter Afflerbach and Deborah Litt

3.21.4 Are Students Learning Science in the CORI Program As Well As Other Students Enrolled in Traditional Programs?
William G. Holliday

3.22.4 Observational Analysis of an Integrated Curriculum
Cynthia Hynd, Steven Stahl, Martha Carr, Bruce Britton, and Shawn Glynn

3.23.4 The Effects of Multiple Text Readings
Steven Stahl, Cynthia Hynd, and Bruce Britton

3.24.4 Students' Analogical Reasoning
Shawn Glynn

3.25.4 Metacognition, Strategy Use, and Interest in an Integrated Curriculum
Martha Carr

3.26.4 Empowering Children as Researchers: Reading, Writing, and Thinking Through Integrated Units in Social Studies
Mariam Jean Dreher and Suzanne F. Clewell

3.27.4 Concept Development and Understanding in the History-Social Studies Classroom: Comparative Case Studies of Reading Engagement
Bruce A. VanSledright

3.28.4 Second-Language Students in Content Classrooms: Identifying and Employing Strategies for Learning with Texts
Rachel A. Grant

4.29.4 Literacy Professionals' Ways of Knowing: The National Perspective
Michelle Commeyras, Linda DeGroff, and Randi Stanulis

4.30.4 Becoming a Community of Researchers: Evolution of the University of Georgia School Research Consortium
Betty Shockley, JoBeth Allen, and James F. Baumann

4.31.4 Portfolios as Ways for Teachers to Know About Their Instructional Practices
Ronald D. Kieffer and Linda S. Morrison

4.32.4 High School Teachers' Perceptions of Their Roles in Supporting Students' Motivations for Literacy Learning
Penny Oldfather and Sally Thomas

4.33.4 Growing Together Through Collaborative Inquiry: Case Studies of Beginning and Experienced Teachers in Secondary School Literacy
Sally Hudson-Ross, Peg Graham, Patti McWhorter, Dana Fox, and Connie Zimmerman

4.34.4 Teacher Book Clubs: What Happens in Classrooms When Teachers and Student Teachers Participate in Contemporary Multicultural Fiction Literature Discussion Groups
James Flood and Diane Lapp

5.35.4 Teacher Inquiry: The University of Georgia School Research Consortium in Its Second Year
Betty Shockley, JoBeth Allen, and James F. Baumann

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